REMARKS

Claims 1 - 15 and 28 - 31 are pending in the application. Claims 16 - 27 were previously cancelled and claims 29 – 31 were previously added. Claim 14 has been canceled. Claims 1, 28, 29 and 30 have been amended.

The Office Action summary indicates that this action is non-final. However, the Detailed Action states that this action is made final. However, as this Office Action is in response to an RCE in which new issues of patentability were raised, it is believed that this action is in fact non-final. Thus, this Response is responding to the Office Action as a non-final Office Action.

Claims 1, 2, and 6 - 15 stand rejected over Barry et al., U.S. Patent No. 6,615,258 (Barry). Claims 3, 4 and 28 stand rejected over Barry in view of Conner et al., U.S. Patent No. 6,816,882 (Conner). Claim 5 stands rejected over Barry in view of Shaw et al., U.S. Patent No. 6,243,451 (Shah).

In general, the present invention relates to a remote services architecture in which one or more service modules are segmented from a remote services infrastructure. By segmenting the service modules, data can be shared across various service modules (See e.g., Wookey application, Page 10, lines 14, 15.) Additionally, segmenting the service modules from the infrastructure enables services to be created in a standardized manner, ultimately providing greater value to the customer. (See e.g., Wookey application, Page 10, lines 24 – 26.)

More specifically, the present invention, as set forth by independent claim 1, relates to a remote services architecture which includes a remote services infrastructure wherein the infrastructure controls remote service delivery and provides remote services data management, and a service module which interacts with the remote services infrastructure to provide a specific service. The service module is segmented from the remote services infrastructure. The remote services infrastructure includes an infrastructure communications portion which provides physical network communications. The infrastructure communications portion supports a communications module which communications module includes a queuing module. The queuing module queues data sent through the remote services infrastructure to provide data communications integrity.

Hamden
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Rumsfeld

Additionally, the present invention, as set forth by independent claim 28, relates to a remote services architecture which includes a remote services infrastructure and a plurality of service modules where the infrastructure controls remote service delivery and providing remote services data management and the plurality of service modules interact with the remote services infrastructure to provide a specific service, the plurality of service modules being segmented from the remote services infrastructure and each other. The plurality of service modules include an administration and notification interface module, the administration and notification interface module allowing a customer and a service provider to control the remote services infrastructure, an installation, registration and change management module, the installation, registration and change management module supporting the remote services infrastructure and any other service modules deployed on top of the infrastructure, and an integration into system management platforms module, the integration into system management platforms module providing an integration point to a systems management platform.

Additionally, the present invention, as set forth by independent claim 29, relates to a remote services architecture which includes a remote services infrastructure that controls remote service delivery and provides remote services data management. The remote services infrastructure includes a remote services proxy, an intermediate mid level manager coupled to the remote services proxy, an application server providing persistent storage or remote services infrastructure information, and a plurality of service modules coupled to the application server. The remote service proxy provides an application program interface to systems management systems. The intermediate mid level manager provides transaction integrity, redundancy and data queue management. The plurality of service modules interact with the remote services infrastructure to provide a specific service. The plurality of service modules are segmented from the remote services infrastructure and from each other.

When discussing the rejection of claim 14, which is now incorporated into independent claim 1, the Examiner set forth:

> In regards to claim 14, Barry et al. discloses the remote services architecture of claim 11 wherein the communications module includes a queuing module, the queuing module queuing data sent through the remote services infrastructure to provide data communications integrity (col. 7, ll. 66-67, col. 8 11. 1-39, col. 10 ll 13-26) (Office action dated April 17, 2006, Page 7, ¶12)

The portions of Barry to which the examiner refers sets forth:

As shown in FIG. 2, the aforesaid objects will communicate the data by establishing a secure TCP messaging session with one of the DMZ Web servers 24 via an Internet secure communications path 22 established, preferably, with a secure sockets layer (SSL) version of HTTPS. The DMZ Web servers 24 function to decrypt the client message, preferably via the SSL implementation, and unwrap the session key and verify the users session. After establishing that the request has come from a valid user and mapping the request to its associated session, the DMZ Web servers 24 re-encrypt the request using symmetric encryption and forward it over a second socket connection 23 to the dispatch server 26 inside the enterprise Intranet.

As will be hereinafter described in greater detail a customer session is designated by a logon, successful authentication, followed by use of server resources, and logoff. However, the world-wide Web communications protocol uses HTTP, a stateless protocol, each HTTP request and reply is a separate TCP/IP connection, completely independent of all previous or future connections between the same server and client. The system of the present invention is implemented with a secure version of HTTP such as S-HTTP or HTTPS, and preferably utilizes the SSL implementation of HTTPS. The preferred embodiment uses SSL which provides a cipher spec message which provides server authentication during a session. The preferred embodiment further associates a given HTTPS request with a logical session which is initiated and tracked by a "cookie jar server" 28 to generate a "cookie" which is a unique server-generated key that is sent to the client along with each reply to a HTTPS request. The client holds the cookie and returns it to the server as part of each subsequent HTTPS request. As desired, either the Web servers 24, the cookie jar server 28 or the Dispatch Server 26, may maintain the "cookie jar" to map these keys to the associated session. A separate cookie jar server 28, as illustrated in FIG. 2 has been found desirable to minimize the load on the dispatch server 26. This form of session management also functions as an authentication of each HTTPS request, adding an additional level of security to the overall process (Col. 7, line 66 – col. 8, line 39).

and,

The DMZ Web servers 24 are found in a special secure network area set aside from the Intranet to prevent potentially hostile customer access. All DMZ equipment is physically isolated and firewalled as illustrated at 25(a), 25(b) from the company Intranet. Similarly, the DMZ equipment is firewalled and obscured from hostile attacks from the public Internet, except for limited Web browser access to the Web servers which are located in the DMZ. The customer's Web browser connects to a Web server in the DMZ which in turn connects to the Dispatch server 26 which acts as a proxy to extract select information from the mid-range servers 30. A user may not directly connect to any enterprise server in the enterprise Intranet, thus ensuring internal company system security and integrity (Col. 10, lines 13 – 26).

However, nowhere within these portions of Barry, nor anywhere else in Barry is there any disclosure or suggestion of a remote services infrastructure which includes an infrastructure communications portion which provides physical network communications, or where the infrastructure communications portion supports a communications module which includes a queuing module that queues data sent through the remote services infrastructure to provide data communications integrity as claimed in claim 1.

When discussing the rejection of claim 29, and specifically, the intermediate mid level manager of claims 29, the examiner set forth:

> As to claim 29, Barry discloses a remote services architecture comprising:
>
> * * *
>
> an intermediate mid level manager coupled to the remote services proxy, the intermediate mid level management providing transaction integrity and data queue management [Figure 2 <<item 30>> | Figure 10 | Figure 16(b) | column 16 <<lines 5 – 19>>]. (Office action dated April 17, 2006, ¶25.)

The portion of Barry to which the examiner refers sets forth:

> FIG. 7 illustrates a general architectural overview of the OE application component which includes a OE server 39 resident in a mid-range computer, and an associated client application 154 running in a user platform having a Web browser, hereinafter referred to as a OE client application. The OE server 39 processes a number of transaction requests relating to authentication and entitlements, from other application services, both from the client and the application server 30 sides of the network. In addition, the OE server 39 receives transaction requests from the OE client application 154. The transactions are typically message driven and comprise requesting transactions and response transactions. The OE server 39 responds to the message requests by formulating transaction responses and transmitting them to the requesting servers and clients(Col. 16, lines 5 - 19).

However, nowhere within this portions of Barry, or anywhere else in Barry is there any disclosure or suggestion of an intermediate mid level manager as claimed.

Barry discloses an integrated data management system for providing data management services from an enterprise over the Internet. A user interface executable in a customer workstation authenticates the customer's access to the system and presents one or more data management services according a customer entitlement, for the customer to select. Client applications representing the data management services re initiated by the user interface in

response to customer selection. Consequently, the customer is enabled at the customer site to request and receive the data management services according to the customer's entitlements in a secure Internet-based computing environment.

Barry discloses a middle tier 16 as well as a back end tier 18. The middle tier simplifies the interchange of data across the network. The back end tier includes applications directed to legacy back end services. Barry further discloses a client tier 10 of software services that are resident on a customer workstation. The client tier 10 provides customer access to the enterprise system. The applications are integrated using a back plane services layer 12. There is no discussion within Barry of applications within the client tier being separately segmented from the other tiers of the system. Nor is there any discussion within Barry of the benefits derived from the separate segmentation of service modules from a remote services infrastructure.

Conner discloses a system where a user contracts with an application service provider for hosting a needed application. By contracting with a service provider, the user may interact with the application by using only a thin client rather than maintaining a thick client. The user rents an application from either the service provider or an independent application provider. If the user procures the application from an application provider, the application provider negotiates hosting terms with the service provider prior to installing the application into the service provider's warehouse.

Shah discloses a service management system which creates, provisions, customizes, and restricts service offerings available on an intelligent network. The service creation environment has a schema query, service screen builder, and logic analyzer that cooperate to create a service screen definition. The service screen definition supports graphical user interfaces that interface with a telephony database.

Barry, taken alone or in combination, does not teach or suggest a remote services architecture which includes a remote services infrastructure wherein the infrastructure controls remote service delivery and provides remote services data management, and a service module which interacts with the remote services infrastructure to provide a specific service, much less such a remote services architecture wherein the service module is segmented from the remote services infrastructure in which the remote services infrastructure includes an infrastructure

communications portion that supports a communications module which provides physical network communications where the communications module includes a queuing module that queues data sent through the remote services infrastructure to provide data communications integrity, all as required by claim 1. Accordingly, claim 1 is allowable over Barry, Conner and Shah. Claims 2 - 15 depend from claim 1 and are allowable for at least this reason.

Barry and Conner, taken alone or in combination, do not teach or suggest a remote services architecture which includes a remote services infrastructure and a plurality of service modules where the infrastructure controls remote service delivery and providing remote services data management and the plurality of service modules interact with the remote services infrastructure to provide a specific service, the plurality of service modules being segmented from the remote services infrastructure and each other, much less such an architecture where the plurality of service modules include an administration and notification interface module, the administration and notification interface module allowing a customer and a service provider to control the remote services infrastructure, an installation, registration and change management module, the installation, registration and change management module supporting the remote services infrastructure and any other service modules deployed on top of the infrastructure, and an integration into system management platforms module, the integration into system management platforms module providing an integration point to a systems management platform, all as required by claim 28. Accordingly, claim 28 is allowable over Barry and Conner.

Barry, taken alone or in combination, does not teach or suggest a remote services architecture which includes a remote services infrastructure that controls remote service delivery and provides remote services data management wherein the remote services infrastructure includes a remote services proxy that provides an application program interface to systems management systems, an intermediate mid level manager coupled to the remote services proxy which provides transaction integrity, redundancy and data queue management, an application server providing persistent storage or remote services infrastructure information, and a plurality of service modules coupled to the application server that interacts with the remote services infrastructure to provide a specific service, much less such an architecture where the plurality of service modules are segmented from the remote services infrastructure and from each other, all

as required by claim 29. Accordingly, claim 29 is allowable over Barry. Claims 30 and 31 depend from claim 29 and are allowable for at least this reason.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

The Commissioner is authorized to charge Deposit Account 502264 for any fees deemed due and to credit any fees to Deposit Account 502264.

I hereby certify that this correspondence is being electronically submitted via the USPTO Web Site on June 19, 2006.

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Respectfully submitted,

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